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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,626

05/24/2006

Robert Schmeler

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4377

35301

7590

03/16/2009

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EXAMINER

KASTLER, SCOTT R

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

03/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,626	<b>Applicant(s)</b> SCHMELER ET AL.	
	<b>Examiner</b> Scott Kastler	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-59 and 63-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-59 and 63-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 35-41, 50, and 53-68 are rejected under 35 U.S.C. 102(b) as being anticipated by German'998. German'998 teaches a cooling plate (11) including machined holes which are filled with cooling tubes (13), where the tubes are press fit into the holes preferably by shrink fitting, which meets the definition of a metallurgical process since metal members are deformed and changed metallurgically, thereby showing all aspects of the above claims since with respect to the process claims 35-41 and 50, the insertion of the tube (13) which is of a greater diameter to some extent than the machined holes in their cold state causes some plastic deformation of the plate when the plate cools around the inserted tubes. Further with respect to apparatus claims 53-68, since the final apparatus or product is substantially similar, the manner of it's construction cannot be relied upon to fairly further distinguish claims to the final product.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 35-59 and 63-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornschemeyer in view of either of GB'655 or JP'661. Hornschemeyer teaches a cooling plate and method of manufacture in which a cooling plate of copper materials has holes machined therethrough, which is then metallurgically deformed through rolling to form oval cooling passages therethrough, thereby showing all aspects of the above claims except the specific step of forming the cooling holes through the insertion of cooling tubes within the machined holes prior to deforming through rolling of the plate, although Hornschemeyer does state that the passages (7) may be made by "using all known methods" (paragraph [0023]) each of GB'655 and JP'661 teach that in forming heat exchange plates (which include cooling plates as shown by Hornschemeyer) in which cooling passages are to be formed within a cooling plate, it was known in the art at the time the invention was made to insert a cooling tube in a slit or bulge formed in the plate and then close through deformation or rolling. Because Hornschemeyer specifically allows for any desired cooling channel formation process, motivation to employ a channel formation process for a cooling or heat exchange plate in which rolling is employed as taught by each of GB'655 and JP'661, since Hornschemeyer also requires rolling deformation of the plate, as the channel formation step of Hornschemeyer, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

### ***Response to Arguments***

Applicant's arguments filed on 12/18/2008 have been fully considered but they are not persuasive. Applicant's arguments with respect to the application of German'998 to the instant claims are not persuasive for the reasons given above, German'998 does employ some degree of

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plastic deformation, and with respect to the apparatus claims, even if this were not so, the manner in which the product or apparatus is constructed cannot be relied upon to fairly distinguish apparatus claims from a substantially identical apparatus disclosed by the applied prior art.

Applicant's argument that there would be no suggestion to employ the construction methods of either of JP'661 or GB'655 in the construction of a cooling plate as disclosed by Hornshemeyer, and that Hornshemeyer actually teaches away from the use of such methods is not persuasive because firstly, as recited in the above rejection, Hornshemeyer specifically states that any desired cooling passage construction method may be employed, which would include the methods of either of GB'655 or JP'661, and further Hornshemeyer, in the passage recited by Applicant in their response, teaches only the undesirability of employing cast iron cooling tubes, which are not employed by either of GB'655 or JP'661. In any event, as stated in the above rejections, Hornshemeyer in its broadest reasonable embodiment specifically includes the use of coolant channel construction steps as recited by each of GB'65 and JP'661 and a reference is relevant for all of the embodiments it teaches, not only its preferred embodiments, but even non-preferred and undesirable embodiments.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott Kastler/  
Primary Examiner, Art Unit 1793

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